MEMORANDUM



Missouri Department of Transportation Construction and Materials Central Laboratory

TO:

Andrew Ellsworth-SW/rw

COPY:

FROM:

Frank Reichart

Environmental Chemist

DATE:

September 21, 2011

SUBJECT:

Materials

Asbestos Inspection & Heavy Metal Paint Survey

Route 160 Job No. N/A

Parcel E8-0697 Rueter MT Lot

Taney County

We are providing you with the results of the requested inspection on the above referenced property. The inspection report contains an asbestos and a heavy metals survey, unless otherwise requested. The asbestos inspection included sample collection of suspect asbestos-containing material and National Voluntary Laboratory Accreditation Program (NVLAP) accredited testing to confirm the presence of asbestos. This asbestos and heavy metal paint report includes four different report forms. Form T746 lists all of the samples taken during the asbestos inspection. Form T747 shows only those samples that tested positive for Category I nonfriable asbestos-containing materials that may remain in the structure during demolition, if kept adequately wet to avoid visible air emissions. Form T748 shows only those samples that tested positive for asbestos and require removal prior to demolition. Form C760 lists all paint samples taken during the heavy metal paint survey and their metal content.

In accordance with the National Emissions Standard for Hazardous Air Pollutants (NESHAP), as well as city and county asbestos abatement regulations - Registration, Notification, and Performance Requirements, regulated asbestos-containing material (RACM) namely, Friable and Category II nonfriable, have a high probability of becoming friable under normal demolition forces. Practices and procedures for removal prior to demolition, disposal, and clearances should be in accordance with referenced regulations. Missouri Department of Transportation policy is to perform asbestos abatements in accordance with NESHAP.

In accordance with Missouri Department of Natural Resources' Technical Bulletin "Managing Construction and Demolition Waste" dated January 31, 2003, a heavy metal paint survey has been performed on the above referenced property. We are providing you with the results of this survey. This survey includes locating painted concrete, block and/or brick surfaces, sampling/testing the painted surface(s) to determine if hazardous heavy metals are present. Non-hazardous painted concrete, blocks, or bricks may be used as clean fill materials, if properly

TO: Ellsworth-SW/rw Page 2 September 21, 2011

handled. You must contact the Central Office Design Division for proper handling of the reported painted surfaces.

Although our survey included observing and sampling behind walls, above ceilings, beneath floors, etc., it is possible that potentially hidden asbestos-containing materials may exist within the structure. To our knowledge, we have located all suspect asbestos-containing and all painted concrete, block and brick surfaces. If suspect asbestos-containing materials or if painted concrete, block and/or brick surfaces are observed in addition to those reflected in this inspection report, then please advise us immediately so that we may schedule a follow-up inspection.

Should you have any questions regarding these reports, please contact me at (573) 526-4359.

db/dr

J:\barred\asbestos\District - SW (Southwest)\Misc\fr1109213.docx Attachments

Asbestos Survey Report All Suspect ACM

	SITE ADDRESS:	PARCEL NO.:	DATE OF SURVEY:	COUNTY:	DISTRICT:	MODOT JOB NO.:	ROUTE:	
(23/4 miles West of Rt 125)	33279 Highway 160, Kissee Mills	E8-0697 (Rueter MT Lot)	August 31, 2011	Taney	WS	N/A	US 160	

CERTIFICATION #: SURVEYED BY: Frank Reichart and Diane Roegge

TYPE(S) OF STRUCTURE(S): 5-Bay Block Maintenance Shed on Concrete, Metal Used Oil 7112010411MOIR11239, F.R. 7112010411MOIR7165, D.R.

Tank & Basin, Small Metal-Clad Uniform Shed, Small Block

Wellhouse, 2-Bay Wood-Frame Salt Shed, Brine Tanks & Metal

Flammable Shed on Concrete, Metal-Clad Metal Frame 2-Car Supports, Concrete Jersey Barrier Trash Bin, Metal-Clad Wooden

Canopy, Metal Spreader Equipment Racks, and Concrete Fuel

Tank Basin

11MD1R 635 A	<u> </u>	11MD1R 634 A			X		N.	to		11MD1R 633 In		L							_	Sample ID
Asphalt Roofing Shingles	Salt Shed	Asphalt Roofing Shingles	Block Wellhouse	No samples taken. No suspect ACM located.	Metal-Clad Uniform Shed	No samples taken. No suspect ACM located.	Metal Used Oil Tank & Basin	to be ACM (P-ACM) with typical asbestos type and percentage reported.	NOTE: Asphalt Joint Compound sample was not obtained due to safety	Insulation	Insulation	Insulation	Sheetrock (No Mud/Tape)	Ceiling Tile (2'x 2')	Asphalt Joint Compound*	Asphalt Felt Material	Asphalt Roofing Shingles	Asphalt Roofing Shingles	Maintenance Shed	Type of Materials
Roof, Under Metal Roofing		Roof, Under Metal Roofing							ot obtained due to safety considerations. Material is presumed	Attic and Roofline	Flex-Duct, Above Ceiling Tile	Above Ceiling Tile	Walls, Under Paneling	Sink Area/Bathroom/Breakroom/Office	Roof, Around Vents	Roof, 3 rd Layer	Roof, 2 nd Layer	Roof, 1 st Layer		Location of Material
N-ACM		N-ACM								N-ACM	N-ACM	N-ACM	N-ACM	N-ACM	HNI	N-ACM	N-ACM	N-ACM		Friability Category
														1	16 Sq. Ft.					Field Measure

Asbestos Survey Report All Suspect ACM

ROUTE: MODOT JOB NO.: DISTRICT: COUNTY:	US 160 N/A SW Taney
DISTRICT:	WS
COUNTY:	Taney
DATE OF SURVEY:	August 31, 2011
PARCEL NO.:	E8-0697 (Rueter MT L
SITE ADDRESS:	33279 Highway 160, Kissee Mills

(2% miles West of Rt 125)

CERTIFICATION #: SURVEYED BY:

7112010411MOIR11239, F.R. Frank Reichart and Diane Roegge 7112010411MOIR7165, D.R.

TYPE(S) OF STRUCTURE(S): 5-Bay Block Maintenance Shed on Concrete, Metal Used Oil

Tank & Basin, Small Metal-Clad Uniform Shed, Small Block

Flammable Shed on Concrete, Metal-Clad Metal Frame 2-Car Supports, Concrete Jersey Barrier Trash Bin, Metal-Clad Wooden Wellhouse, 2-Bay Wood-Frame Salt Shed, Brine Tanks & Metal

Canopy, Metal Spreader Equipment Racks, and Concrete Fuel

Tank Basin

11MD1R 637 11MD1R 638 11MD1R 636 Sample ID **Asphalt Roofing Shingles** be present hidden underneath vinyl/metal siding, metal roofing, interior walls and/or ceilings. NOTE: Non-destructive means were used to survey and sample this property. Additional suspect material may **Concrete Fuel Tank Basin** Metal Spreader Equipment Racks 2-Car Metal Canopy Insulation Asphalt Felt Material **Metal-Clad Flammable Shed Brine Tanks and Metal Supports Concrete Jersey Trash Bins** No samples taken. No suspect ACM located No samples taken. No suspect ACM located. No samples taken. No suspect ACM located No samples taken. No suspect ACM located No samples taken. No suspect ACM located Type of Materials Attic Roof, 2nd Layer Roof, 1st Layer **Location of Material** N-ACM N-ACM N-ACM Friability Category Measure Field

Asbestos Survey Report

Nonfriable Asbestos-Containing Materials (Abatement not required if not made friable during demolition.)

ROUTE:	US 160	TESTED BY:
MODOT JOB NO.:	N/A	CERTIFICATION #:
DISTRICT:	SW	TYPE(S) OF STRUCTURE(S):
COUNTY:	Taney	•
DATE OF TESTS:	September 19 & 21, 2011	
PARCEL NO.:	E8-0697 (Rueter MT Lot)	
SITE ADDRESS:	33279 Highway 160, Kissee Mills	

(23/4 miles West of Rt 125)

Frank Reichart and Diane Roegge

7112010411MOIR11239, F.R. 7112010411MOIR7165, D.R. 5-Ray Rlock Maintenance Shed on Concrete Matality J.C.;

5-Bay Block Maintenance Shed on Concrete, Metal Used Oil Tank & Basin, Small Metal-Clad Uniform Shed, Small Block Wellhouse, 2-Bay Wood-Frame Salt Shed, Brine Tanks & Metal

Supports, Concrete Jersey Barrier Trash Bin, Metal-Clad Wooden Flammable Shed on Concrete, Metal-Clad Metal Frame 2-Car Canopy, Metal Spreader Equipment Racks, and Concrete Fuel

			Thinkshit.			
Sample ID	Type of Material	Location of Material	Category	Measure	Type	Percent
	Maintenance Shed					
11MD1R 628	Asphalt Joint Compound®	Roof, Around Vents	INI	16 Sq. Ft.	16 Sq. Ft. Chrysotile 15-30	15-30°
	NOTE: Asphalt Joint Compound sample was not obtained due to safety	as not obtained due to safety considerations. Material is	Material is			
	presumed to be ACM (P-ACM) with typical asbestos type and percentage reported.					
	Metal Used Oil Tank & Basin					
		None Located	INF			
	Metal-Clad Uniform Shed					
		None Located	INF			
	Block Wellhouse					j
		None Located	INF			
	Salt Shed					
		None Located	INF			
	Brine Tanks and Metal Supports					
		None Located	INF			
	Concrete Jersey Trash Bins					
		None Located	INF			
	Metal-Clad Flammable Shed					
		None Located	INF			

All necessary work to handle this material is the contractor's responsibility.

Asbestos Survey Report

(Abatement not required if not made friable during demolition.) Nonfriable Asbestos-Containing Materials

	SITE ADDRESS:	PARCEL NO.:	DATE OF TESTS:	COUNTY:	DISTRICT:	MODOT JOB NO.:	ROUTE:
(23/4 miles West of Rt 125)	33279 Highway 160, Kissee Mills	E8-0697 (Rueter MT Lot)	September 19 & 21, 2011	Taney	SW	N/A	US 160
				•	TYPE(S) OF STRUCTURE(S):	CERTIFICATION #:	TESTED BY:

Frank Reichart and Diane Roegge

7112010411MOIR11239, F.R.

5-Bay Block Maintenance Shed on Concrete, Metal Used Oil 7112010411MOIR7165, D.R.

Wellhouse, 2-Bay Wood-Frame Salt Shed, Brine Tanks & Metal Tank & Basin, Small Metal-Clad Uniform Shed, Small Block

Canopy, Metal Spreader Equipment Racks, and Concrete Fuel Flammable Shed on Concrete, Metal-Clad Metal Frame 2-Car Supports, Concrete Jersey Barrier Trash Bin, Metal-Clad Wooden

Sample ID 2-Car Metal Canopy **Concrete Fuel Tank Basin** Metal Spreader Equipment Racks Type of Material None Located None Located None Located Location of Material Category Friability INF INF INF Measure Field Asbestos Type Percent

All necessary work to handle this material is the contractor's responsibility.

walls and/or ceilings.

suspect material may be present hidden underneath vinyl/metal siding, metal roofing, interior

NOTE: Non-destructive means were used to survey and sample this property. Additional

All materials requiring removal or special handling. **Asbestos Survey Report**

PARCEL NO.: DATE OF TESTS: COUNTY: DISTRICT: ROUTE: MODOT JOB NO.: WS US 160 Taney E8-0697 (Rueter MT Lot) September 19 & 21, 2011

SITE ADDRESS:

33279 Highway 160, Kissee Mills

(2½ miles West of Rt 125)

TYPE(S) OF STRUCTURE(S): **CERTIFICATION #:** TESTED BY:

> 7112010411MOIR11239, F.R. Frank Reichart and Diane Roegg

Tank & Basin, Small Metal-Clad Uniform Shed, Small Block 5-Bay Block Maintenance Shed on Concrete, Metal Used Oil 7112010411MOIR7165, D.R.

Flammable Shed on Concrete, Metal-Clad Metal Frame 2-Car Supports, Concrete Jersey Barrier Trash Bin, Metal-Clad Wooden Wellhouse, 2-Bay Wood-Frame Salt Shed, Brine Tanks & Metal

Tank Basin Canopy, Metal Spreader Equipment Racks, and Concrete Fuel

Item No. Sample ID	Type of Material	Location of Material	Friability Category	Field Measure	Asbestos Tyne	Percent
	Maintenance Shed		0		200	2000000
		None Located	ਸ			
		None Located	II NF			
	Metal Used Oil Tank & Basin					
		None Located	T			
		None Located	II NF			
	Metal-Clad Uniform Shed	7.00				
		None Located	F			
		None Located	II NF			
	Block Wellhouse					
		None Located	Ħ			
		None Located	II NF			
	Salt Shed					
		None Located	Ŧ			
		None Located	II NH			
	Brine Tanks and Metal Supports	ports				
		None Located	H			
		None Located	II NF			

Continued on next page

Asbestos Survey Report
All materials requiring removal or special handling.

(23)	SITE ADDRESS: 33279 Highway 160, Kissee Mills	PARCEL NO.: E8-0697 (Rueter MT Lot)	DATE OF TESTS: September 19 & 21, 2011	COUNTY: Taney	DISTRICT: SW	MODOT JOB NO.: N/A	ROUTE: US 160
(7 CD: 105)	way 160, Kissee Mills	ueter MT Lot)	19 & 21, 2011				

TESTED BY: CERTIFICATION #: TYPE(S) OF STRUCTURE(S):

Frank Reichart and Diane Roegge 7112010411MOIR11239, F.R. 7112010411N

7112010411MOIR11239, F.R. 7112010411MOIR7165, D.R. 5-Bay Block Maintenance Shed on Concrete, Metal Used Oil Tark & Bosin Small Mart Classific Concrete, and the Concrete Concr

Tank & Basin, Small Metal-Clad Uniform Shed, Small Block
Wellhouse, 2-Bay Wood-Frame Salt Shed, Brine Tanks & Metal

Supports, Concrete Jersey Barrier Trash Bin, Metal-Clad Wooden Flammable Shed on Concrete, Metal-Clad Metal Frame 2-Car Canopy, Metal Spreader Equipment Racks, and Concrete Fuel

Tank Basin

Concrete Jersey Trash Bins None Located F Metal-Clad Flammable Shed Mone Located II NF					nd/or ceilings.	siding, metal roofing, interior walls and/or ceilings		
Type of Material Location of Material Category Measure Type					present hidden underneath vinyl/metal	Additional suspect material may be		
Type of Material Location of Material Concrete Jersey Trash Bins None Located F Measure Type					e used to survey and sample this property.	NOTE: Non-destructive means were		
Type of Material Location of Material Concrete Jersey Trash Bins None Located F								
Type of Material Location of Material Category Measure Type								
Type of Material Location of Material Category Measure Type Concrete Jersey Trash Bins None Located F Concrete Jersey Trash Bins None Located II NF Concrete Jersey Trash Bins F II NF Concrete Jersey Trash Bins None Located II NF Concrete Jersey Trash Bins None Located II NF Concrete Fuel Tank Basin II NF Concrete Jersey Trash Bins None Located II NF II NF Concrete Jersey Trash Bins None Located II NF II NF Concrete Jersey Trash Bins None Located II NF II NF Concrete Jersey Trash Bins None Located II NF II NF Concrete Jersey Trash Bins None Located II NF II NF Concrete Jersey Trash Bins None Located II NF II NF Concrete Jersey Trash Bins None Located II NF Concrete Jersey Trash								
Type of Material Location of Material Category Measure Type Concrete Jersey Trash Bins None Located F In NF In NF Metal-Clad Flammable Shed None Located If NF In NF In NF Metal-Clad Flammable Shed None Located If NF In NF In NF In NF 2-Car Metal Canopy None Located If NF In				II NF	None Located			
Type of Material Location of Material Category Measure Type Concrete Jersey Trash Bins None Located F Messure Type Metal-Clad Flammable Shed None Located II NF H Metal-Clad Flammable Shed None Located F H 2-Car Metal Canopy None Located II NF H Metal Spreader Equipment Racks None Located II NF H None Located II NF H H Mone Located II NF H H None Located II NF H H				Ħ	None Located			
Type of Material Location of Material Category Measure Type Concrete Jersey Trash Bins None Located F Type None Located II NF F II NF Metal-Clad Flammable Shed None Located F F None Located II NF F F 2-Car Metal Canopy None Located II NF F None Located F II NF F Metal Spreader Equipment Racks II NF II NF II NF None Located II NF II NF II NF						Concrete Fuel Tank Basin		
Type of Material Location of Material Category Measure Type Concrete Jersey Trash Bins None Located F Type None Located II NF F II NF Metal-Clad Flammable Shed None Located F II NF None Located II NF II NF II NF 2-Car Metal Canopy None Located F II NF None Located F II NF II NF Metal Spreader Equipment Racks None Located II NF II NF				II NF	None Located			
Type of Material Location of Material Category Measure Type Concrete Jersey Trash Bins None Located F Messure Type Mone Located II NF Messure Type Metal-Clad Flammable Shed None Located II NF Messure None Located II NF II NF Messure 2-Car Metal Canopy None Located II NF Messure None Located II NF II NF II NF Metal Spreader Equipment Racks II NF II NF II NF				ħ	None Located			
Type of Material Location of Material Category Measure Type Concrete Jersey Trash Bins None Located F — Metal-Clad Flammable Shed None Located II NF — Metal-Clad Flammable Shed None Located F — Par Metal Canopy None Located II NF — Par Metal Canopy None Located II NF — None Located II NF — — II NF — — —					acks	Metal Spreader Equipment Ra		
Type of Material Location of Material Category Measure Type Concrete Jersey Trash Bins None Located F Messure Type Metal-Clad Flammable Shed None Located II NF II NF Metal-Clad Flammable Shed None Located F II NF Par Metal Canopy None Located II NF II NF None Located II NF II NF II NF				IINF	None Located			
Type of Material Location of Material Category Measure Type Concrete Jersey Trash Bins None Located F Type Metal-Clad Flammable Shed None Located II NF II NF Metal-Clad Flammable Shed None Located F II NF 2-Car Metal Canopy None Located II NF II NF				Ŧ	None Located			
Type of Material Location of Material Category Measure Type Concrete Jersey Trash Bins None Located F Type Mone Located II NF II NF Metal-Clad Flammable Shed None Located II NF None Located II NF II NF						2-Car Metal Canopy		
Type of Material Location of Material Category Measure Type Concrete Jersey Trash Bins None Located F Type Mone Located F II NF Metal-Clad Flammable Shed None Located F None Located F F				IINF	None Located			
Type of Material Location of Material Category Measure Type Concrete Jersey Trash Bins None Located F None Located II NF Metal-Clad Flammable Shed I Category Measure Type I None Located II NF				Ŧ	None Located			
Type of Material Location of Material Category Measure Type Concrete Jersey Trash Bins None Located F F None Located II NF II NF						Metal-Clad Flammable Shed		
Type of Material Location of Material Category Measure Type Concrete Jersey Trash Bins None Located F				IINE	None Located			
Type of Material Location of Material Category Measure Type Concrete Jersey Trash Bins				F	None Located			
Type of Material Location of Material Category Measure Type					,	Concrete Jersey Trash Bins		
Friability Field	Percent	Asbestos Type	Field Measure	Friability Category	Location of Material	Type of Material	Sample ID	Bid Item No.

Metals Survey Report of Painted Concrete, Block, Brick Surfaces for Clean Fill Purposes

ROUTE:	US 160
MODOT JOB NO.:	N/A
DISTRICT:	WS
COUNTY:	Taney
SURVEYED BY:	Frank Reichart
DATE OF SURVEY:	August 31, 2011
PARCEL NO.:	E8-0697 (Rueter MT Lot)
SITE ADDRESS:	33279 Highway 160, Kissee Mills
	(23/4 miles West of Rt 125)

DATE OF TESTS: TESTED BY:

Frank Reichar

August 31, 2011

TYPE(S) OF STRUCTURE(S): 5-Bay Block Maintenance Shed on Concrete, Metal Used Oil

Wellhouse, 2-Bay Wood-Frame Salt Shed, Brine Tanks & Metal Tank & Basin, Small Metal-Clad Uniform Shed, Small Block

Supports, Concrete Jersey Barrier Trash Bin, Metal-Clad Wooden

Flammable Shed on Concrete, Metal-Clad Metal Frame 2-Car Tank Basin Canopy, Metal Spreader Equipment Racks, and Concrete Fuel

11MD1R 640 11MD1R 646 11MD1R 641 11MD1R 639 11MD1R 647 11MD1R 642 11MD1R 645 11MD1R 643 1MD1R 644 Sample ID Red/Interior Walls/Block Beige/Exterior Walls/Block White/Interior Walls/Block Gray/Interior Walls/Block Brown/Exterior Walls, Window Sills/Concrete Beige/Exterior Walls/Concrete Dark Brown/Exterior Wall/Concrete Beige/Exterior Walls/Block Metal-Clad Uniform Shed Metal Used Oil Tank & Basin Gray/Interior Walls/Concrete Salt Shed **Block Wellhouse** Maintenance Shed No samples taken. No painted surfaces located. No samples taken. No samples taken. No painted surfaces located. Color/Location of Material/Substrate No painted surfaces located 8 \triangle 37 <29 26 **^17** ۵۵ 2 ^22 30 As <323 <196 <247 <207 <215 <282 <291 396 <258 Ω 451 223 358 316 136 566 369 121 167 Ъ **\$48** 44 <u>\$</u> **~46** 46 **49** <49 <50 51 C Metals (mqq) 4 4 4 4 \Im 4 4 4 4 Se <2,626 <1,783 <2,108 3,248 <1,146 2,265 5,079 1,445 832 Ba <u><19</u> <40 <u><19</u> <19 <16 8 <u><15</u> 20 Hg 2 37 ద్ద <35 **\37 435** 35 <38 **∆**38 Ag

All results are by XRF unless otherwise indicated: a = USEPA SW-846 Method 3050 b = USEPA SW-846 Method 7471

Metals Survey Report of Painted Concrete, Block, Brick Surfaces for Clean Fill Purposes

MODOT JOB NO.: DISTRICT: COUNTY: SURVEYED BY: DATE OF SURVEY: PARCEL NO.: SITE ADDRESS:	N/A SW Taney Frank Reichart August 31, 2011 E8-0697 (Rueter MT Lot) 33279 Highway 160, Kissee Mills (234 miles West of Rt 125)	DATE OF TESTS: TYPE(S) OF STRUCTU	ESTS:	RE(S):	August 31, 2011 5-Bay Block Maintenance Shed on Concrete, Metal Used Oil Tank & Basin, Small Metal-Clad Uniform Shed, Small Block Wellhouse, 2-Bay Wood-Frame Salt Shed, Brine Tanks & Metal Supports, Concrete Jersey Barrier Trash Bin, Metal-Clad Wooden Flammable Shed on Concrete, Metal-Clad Metal Frame 2-Car Canopy, Metal Spreader Equipment Racks, and Concrete Fuel Tank Basin	aintenance S aintenance S Small Metal- ay Wood-Fr ay Wood-Fr rete Jersey B d on Concret Spreader Equ	hed on Conc Clad Unifor Clad Salt She ame Salt She arrier Trash æ, Metal-Cla ipment Rac	rrete, Metal I m Shed, Sma nd, Brine Tan di, Metal-C nd Metal Fran ks, and Conc	Used Oil all Block lks & Metal Clad Wooden me 2-Car rrete Fuel
					Metals (ppm)	tals m)		:	
Sample ID	Color/Location of Material/Substrate	As	Cr	Рb	Cd	Se	Ва	Hg	Ag
	Brine Tanks and Metal Supports								
	No samples taken. No painted surfaces located.								
	Concrete Jersey Trash Bins					·			
	No samples taken. No painted surfaces located.								
	Metal-Clad Flammable Shed		,						
	No samples taken. No painted surfaces located.								
	2-Car Metal Canopy								
	No samples taken. No painted surfaces located.								
	Metal Spreader Equipment Racks								
	No samples taken. No painted surfaces located.								
	Concrete Fuel Tank Basin								
	No samples taken. No painted surfaces located.								
	NOTE: Non-destructive means were used to survey	у							
	property.	d							
[5]		D'							
	vinyl/metal siding, metal rooting, interior walls	S							
	and/or cellings.								
								-	=